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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,596	11/14/2000	Sean Harnett	319700031REA	9940

7590 08/07/2002

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EXAMINER

WACHSMAN, HAL D

ART UNIT PAPER NUMBER

2857

DATE MAILED: 08/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

09/712,596



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER
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DATE MAILED:

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Commissioner of Patents and Trademarks

Hal D Wachsman
Primary Examiner
Art Unit: 2857

Office Action Summary

Application No.

09/712,596

Applicant(s)

HARNETT, SEAN

Examiner

Hal D Wachsmen

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-16, 18-24, 26-31 and 33-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 11-16, 18-24 and 26-30 is/are allowed.
- 6) ☒ Claim(s) 31, 33-35 and 37 is/are rejected.
- 7) ☒ Claim(s) 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2857

1. The Applicant's reply filed 5-14-02 had replacement paragraphs to the specification with one replacement paragraph starting at column 3, line 1, and the other replacement paragraph starting at column 4, line 66 for the purpose of entering Certificate of Correction changes into the specification. However, because these replacement paragraphs were for entering Certificate of Correction changes, these replacement paragraphs were improper as they contained bracketing and underlining. In this situation, the Certificate of Correction changes have to be entered as if they were part of the original patent (i.e. no brackets or underlining). Appropriate correction is required.
2. Claim 12 is objected to under 37 C.F.R. 1.75(c) for failing to refer back to and further limit another claim. Claim 12 depends from claim 10, however **claim 10 was canceled** in the reply filed 12-12-01. Appropriate correction is required.
3. Claims 5 and 6 are objected to under 37 C.F.R. 1.75(i) because these claims set forth a plurality of elements however each element is not separated by a line indentation. Appropriate correction is required.
4. Claims 1-4, 7-9, 11-16, 18-24, 26-31 and 33-37 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The last line of claim 1 cites "said first variable impedance *device* driven element" which lacks clear antecedent basis. This same type of problem also occurs in the last line of claim 2. Claim 2, line 4, cites "said first and second error signals" which lacks antecedent basis. This same type of problem also occurs in claim 3, lines 4-7. Claim 7, line 14, cites "the error signal value" which lacks

Art Unit: 2857

clear antecedent basis. Claim 9, line 16, cites "the fuzzy logic rules" which lacks antecedent basis. Claim 9, line 18, cites "said *restrictive* error signals" which lacks antecedent basis. Claim 16, line 18, cites "said first and second error signals" which lacks antecedent basis. Claim 19, lines 2-3, cites "the at least one fuzzy output" which lacks antecedent basis. Claim 24, line 9, cites "the phase and magnitude error signals" which lacks clear antecedent basis. This same type of problem also occurs in claim 24, lines 13-14. Claim 27, lines 2-3, cite "the at least one respective fuzzy output value" which lacks antecedent basis. Claim 31, line 11, cites "said error signal" which lacks antecedent basis. Claim 33, lines 1-2, cites "the step of applying fuzzy logic" however the actual antecedent basis is "applying fuzzy logic rules.". This same type of problem also occurs in claims 34 and 35, lines 1-2. Claim 34, lines 2-3, cite "the at least one respective fuzzy output value" which lacks antecedent basis. The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Art Unit: 2857

6. Claims 31 and 33 are rejected under 35 U.S.C. 102(a) as being anticipated by Gesche et al. (DE 195 21 387 A1 – see translation).

As per claim 31, Gesche et al. (see page 5, all, page 6, all, page 7, lines 1-17 of the translation) disclose the determining step. Gesche et al. (page 7, lines 18-20, page 8, all, page 9, lines 1-12 of the translation) disclose both applying steps as well as the first generating step. Gesche et al. (figures 1, 2, page 10, lines 6-18 of the translation) disclose the second generating step.

As per claim 33, Gesche et al. (page 7, lines 18-20, page 8, all, page 9, lines 1-12 of the translation) disclose the feature of this claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gesche et al. (DE 195 21 387 A1 – see translation) in view of Travaglia et al. (5,805,649).

As per claims 34 and 35, Travaglia et al. (Abstract, col. 4 lines 51-67, col. 5 lines 1-7) teach the features of each of these claims. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the

Art Unit: 2857

techniques of Travaglia et al. to the invention of Gesche et al. as specified above because in both references fuzzy control is being used to adjust circuit parameters.

9. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gesche et al. (DE 195 21 387 A1 – see translation) in view of the Applicant's Admissions of the prior art.

As per claim 37, the Applicant's Admissions of the prior art (see col. 2 lines 34-37 of U.S. patent no. 5,842,154) teaches the features of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the Applicant's Admissions of the prior art to the invention of Gesche et al. as specified above because as taught by the Applicant's Admissions of the prior art (col. 2 lines 33-37 of U.S. patent no. 5,842,154) in the fuzzy logic control process the process control engineer establishes a number of overlapping fuzzy sets. Consequently, such a procedure would also be applicable to the establishment of overlapping fuzzy sets for the fuzzy controller of Gesche et al.

10. Claims 1-9, 11-16, 18-24 and 26-30 are allowed subject to the appropriate correction of the 37 C.F.R. 1.75(a), 37 C.F.R. 1.75(c), and 37 C.F.R. 1.75(i), objections noted above.

Claim 36 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and subject to the appropriate correction of the 37 C.F.R. 1.75(a) objections noted above.

Art Unit: 2857

11. The following reference is cited as being art of additional general interest:

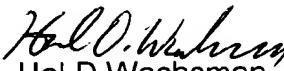
Nomoto et al. which disclose an auto-tuning controller using fuzzy reasoning to obtain optimum control parameters.

12. Applicant's arguments with respect to claims 31, 33-35 and 37 have been considered but are moot in view of the new ground(s) of rejection.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D Wachsman whose telephone number is 703-305-9788. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Hal D Wachsman
Primary Examiner
Art Unit 2857

HW
August 1, 2002